



Date: February 19, 2016  
To: Patrick H. West, City Manager *P.H. West*  
From: Edward Farrell, Acting Director of Long Beach Gas and Oil /s/  
For: Mayor and Members of the City Council  
Subject: **SERRF Turbine Generator Maintenance Update**

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The SERRF turbine generator was removed from service on January 10, 2016. This is part of the routine maintenance efforts, which includes a major overhaul every five years. The turbine generator converts mechanical energy into electrical power that is ultimately sold to Southern California Edison. These maintenance outages typically last from three to four weeks and involve disassembling the turbine generator and inspecting and repairing the blades, the rotor, and generator parts. While the work is necessary to prevent a catastrophic failure, it does reduce the amount of electricity produced at SERRF, thus impacting revenue.

The machine was disassembled and a preliminary inspection and engineering analysis found significant stress corrosion cracking at the tenth, eleventh, and twelfth stage blades. The estimated repair for the turbine is three months. The rotor has been shipped to Perris, California for the initial work. It will then be shipped to Houston, Texas for high speed balancing and finish work. When complete, it will be returned for reassembly and recommissioning at SERRF.

SERRF will continue to accept and process Long Beach refuse during the outage period, but additional volume will be limited. In addition, it is anticipated the extended outage could cause a \$3.5 million impact to revenues. The SERRF fund has sufficient reserve to accommodate the reduced revenue and still meet operational needs. We will continue to closely monitor this development and advise you of any additional concerns and findings.

If you have any questions, please contact Charles Tripp, Manager of Electric Generation Bureau, at (562) 570-7840.

cc: Charles Parkin, City Attorney  
Laura L. Doud, City Auditor  
Tom Modica, Assistant City Manager  
Arturo Sanchez, Deputy City Attorney  
John Gross, Director of Financial Management  
Charles Tripp, Manager of Electric Generation Bureau